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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/540,180	03/31/2000	Sung-Hwa Gong	678-458 (P8993)	2621

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EXAMINER

ORGAD, EDAN

ART UNIT PAPER NUMBER

2618

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/540,180

Applicant(s)

GONG, SUNG-HWA

Examiner

Edan Orgad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 40-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 40-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 1/23/06 have been fully considered but they are not persuasive.

Regarding applicant's argument, examiner respectfully disagrees. Applicant argues the prior art fails to disclose "the generation of input signals..." However, the prior art of record specifically teaches that the communication device distinguishes between long and short press of the smart button, and enters a state depending on the duration of the press. In addition, the function of the smart button is dependent upon the current state of the communication device. Long presses of the smart button are preferably required to perform certain functions in order to avoid inadvertent presses. Among other functions, the smart button preferably provides the user access to the name directory and menu subsystems. Furthermore, the prior art discloses at least one of digits and characters are input by displaying sets of the at least one of digits and characters, moving a cursor over at least one of a character and a digit displayed in the sets of the at least one of digits and characters, and selecting the at least one of the characters and the digit below the curser, using the at least one signal of the multi-function key."

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 40 - 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell et al. (US Patent 5,966,671) in view of Seymour (US Patent No. 6,529,713) and in further view of Griffin et al. (US Patent No. 6,873,317) and further in view of Tso et al (US Patent No. 6,157,323).

Regarding claim 40, Mitchell teaches of a method for using a multi-function key with a protrusion adapted to slide in a first direction and a second direction substantially opposite to the first direction, and be pressed in a third direction substantially perpendicular to the first direction (as seen in Figure 3 and column 3, lines 8 - 25), a display for displaying at least one of digits and characters, as seen in Figure 2 and column 2, lines 55 - 65) and at least one hierarchal menu for selecting various functions (column 2, lines 18 - 30), comprising the steps of generating at least one input signal by performing at least one of the following multi function key manipulations: a) pressing the protrusion of the multi-function key at least once to generate a first input signal; b) sliding the protrusion of the multi-function key in the first direction to generate a second input signal; and c) sliding the protrusion of the multi-function key in the second direction to generate a third input signal (as seen in Figure 3 and starting column 2, line 66 and ending column 3, line 25 and column 2, lines 1 - 12).

Mitchell does not specifically teach of in a watch-type portable phone or the watch-type portable phone having the multi-function key (though it should be noted that Mitchell's invention deals with reduction of size of the mobile through the use of a smart button as detailed in, for example, starting column 1, line 66 and ending column 2, line 12) or of wherein the at least one input signal is used to input the at least digits and characters (though it should be noted that Mitchell does provide for provisions for editing via criteria, as seen in table 2, lines 29 -33).

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In a related art dealing with the carrying of small mobile, Seymour teaches of a watch-type portable phone or the watch-type portable phone (column 1, lines 5 - 14 and Figures 1 - 6).

It would have been obvious to one skilled in the art at the time of invention to have included into Mitchell's multi-function smart button, Seymour's wearable wrist watch configuration, for the purposes of carrying the reduced size mobile and conveniently using the mobile in such a position, as taught by Seymour.

Mitchell in view of Seymour do not specifically teach of wherein the at least one input signal is used to input the at least digits and characters.

In a related art dealing with a method to input characters in a mobile using one input device, Griffin teaches of wherein the at least one input signal is used to input the at least digits and characters (figure 2, element 1000 & column 5, lines 21-57, specifically, thumb wheel 1000 as described in column 5, lines 30-35, 45-57).

It would have been obvious to one skilled in the art at the time of invention to have included into Mitchell and Seymour's wearable mobile with multifunction system, Griffin's inputting methods, for the purposes of realizing an input device which can manage with less mounting space, as taught by Griffin.

However, Griffin fails to specifically disclose the multifunction thumb wheel as capable of entering at least one of digits and characters which are input by displaying sets of the at least one of digits and characters, moving a cursor by generating at least one of the second and third input signals over at least one of a character and a digit displayed in the sets of the at least one of digits and characters, and selecting by generating the first input signal the at least one of the character and the digit below the cursor.

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However, in related art of multi-function keys and data entry, Tso teaches manipulation of a multi function key of a portable device using the key the enter data by at least one of digits and characters which are input by displaying sets of the at least one of digits and characters, moving a cursor over at least one of a character and a digit displayed in the sets of the at least one of digits and characters, and selecting the at least one of the character and the digit below the cursor (see Tso, figure 9 and col. 14, line 61- col. 15, line 29 & figure 16 and col. 20, lines 17-26). It would have been obvious to one skilled in the art at the time of invention to have included into Mitchell and Seymour's wearable mobile with multifunction system as modified by, Griffin's and further utilize Tso's multi function key inputting methods, for the purposes of realizing an input device which can manage with less mounting space and numerous text strings entering abilities that are more user friendly, as taught by Tso.

Regarding claim 42, Mitchell further teaches of wherein the at least one input signal is further used to navigate through the at least one hierarchal menu (column 2, lines 18 -30).

Regarding claim 43, Mitchell further teaches of wherein the at least one input signal is further used to select a function (column 2, lines 18 -30).

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell et al. (US Patent 5,966,671) and Seymour (US Patent No. 6,529,713) in view of Griffin et al. (US Patent No. 6,873,317) and Tso et al (US Patent No. 6,157,323) and further in view of Kunihiro (US Patent No. 5,915,228)

Regarding claim 41, Mitchell in view of Seymour, Griffin and Tso fail to specifically disclose wherein each manipulation generates one of the first sub-input signal and a second sub-

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input signal, said first sub-input signal is generated if the manipulation is performed for a short duration and said second sub-input signal is generated if the manipulation is performed for a long duration. In related art, Kunihiro teaches first inputting is performed if the manipulation is performed for a short duration and a second inputting is performed if the manipulation is performed for a long duration as part of a thumb/wheel (Kunihiro, figure 4 and column 3, lines 41-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a first inputting is performed if the manipulation is performed for a short duration and a second inputting is performed if the manipulation is performed for a long duration with the modified Mitchell's invention in order to provide the user with a timed judging procedure mode for inputting letters and characters.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edan Orgad whose telephone number is 571-272-7884. The examiner can normally be reached on 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edan Orgad

**EDAN ORGAD**  
**PATENT EXAMINER/TELECOMM.**

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